

Western Transmission Expansion Coalition “WestTEC”

Public Webinar
September 1st, 2026

Agenda Overview

Time (PT)	Item	Speaker(s)
8:00-8:15	Welcome - WestTEC Overview - WGA Endorsement - Looking Ahead to WestTEC 2.0 - New WestTEC Page on WPP Website	Sarah Edmonds, WPP
8:15-8:30	Study Execution Update	Keegan Moyer, Energy Strategies
8:30-9:30	20-Year Study Update	Keegan Moyer, Energy Strategies John Muhs, Energy Strategies
9:30-9:55	Q&A	Sarah Edmonds, WPP
9:55-10:00	Action Items and Next Steps	Sarah Edmonds, WPP

Western Transmission Expansion Coalition – “WestTEC”

Recently endorsed by bipartisan governors of the Western Governors Association

WestTEC transmission footprint



The only industry-led interregional transmission analysis



West-wide 10 and 20-year transmission study



Unprecedented regional partner inclusion



Goal is to produce an actionable transmission study

WGA Transmission Resolution: WestTEC + PACT

Endorses WestTEC and creates the Permitting Alignment and Coordination Task Force

WGA Joint Statement

A bipartisan commitment to turn West-wide transmission planning into implementable action.

11

signatory
states

1

Endorse WestTEC

Study process, findings and continued collaboration

2

Coordinate state action

Cross-state, local and Tribal engagement around priority lines

3

Launch PACT

Permitting Alignment and Coordination Task Force

What the resolution changes



WestTEC elevated by governors

Endorses the coalition and study results as a credible West-wide roadmap.



Multi-state permitting forum

PACT creates a structure to align schedules and resolve cross-jurisdictional bottlenecks.



Priority lines move forward

Focuses state attention on high-impact transmission projects identified through WestTEC analyses.



Durable implementation path

Emphasizes Tribal, local and federal coordination while preserving state processes.

WestTEC 2.0 Advisory Group “WAG” Process

1



WestTEC success to date

Building on a strong foundation of collaboration and progress.

2



Growing Support / Western Governors Association Endorsement

Broadening regional support and securing key endorsements.

3



WAG charge and deliverables

- ✓ Concept Paper by end of 2026
- ✓ Three Pillars:
 - Technical Scope
 - Governance & Regional Partner / Stakeholder Engagement
 - Funding

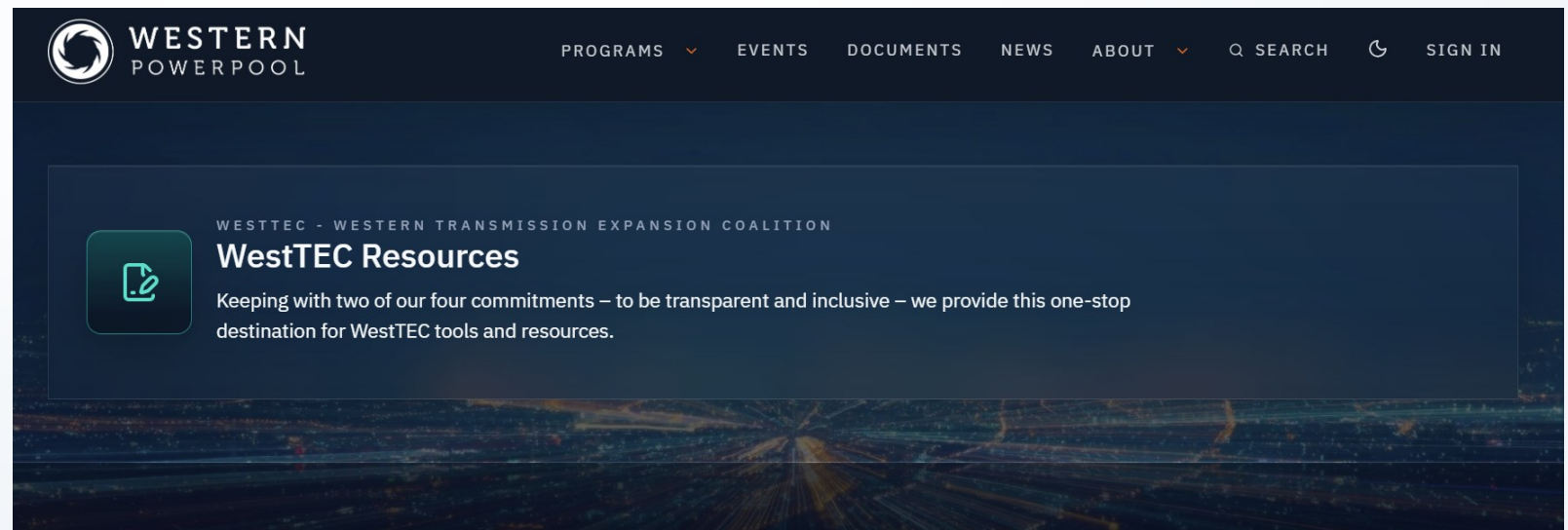


Mindset:
Our foundation is
WestTEC 1.0.

What should remain the same?
What should change?

New WestTEC Page on WPP Website

- » We've put together a new page on the WPP website to house all WestTEC resources in one place!
- » [WestTEC Resources | WPP](#)
- » Please reach out to the GDS team if you have questions



Study Execution Update

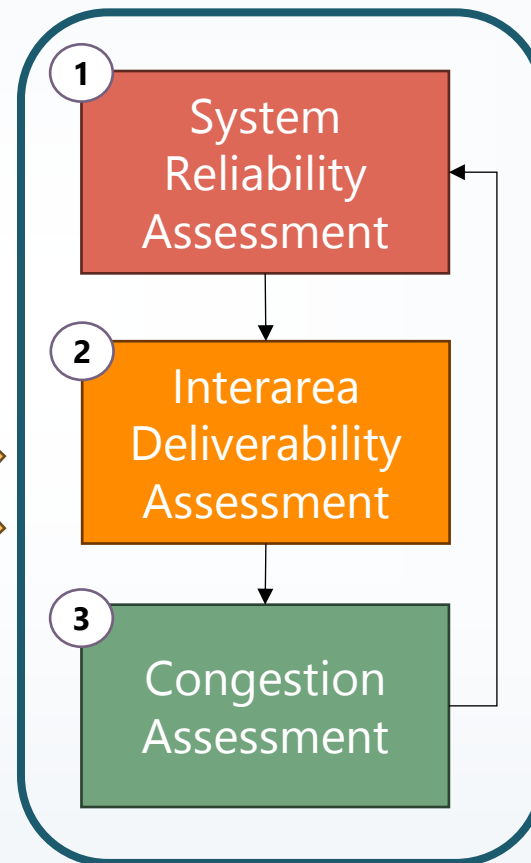
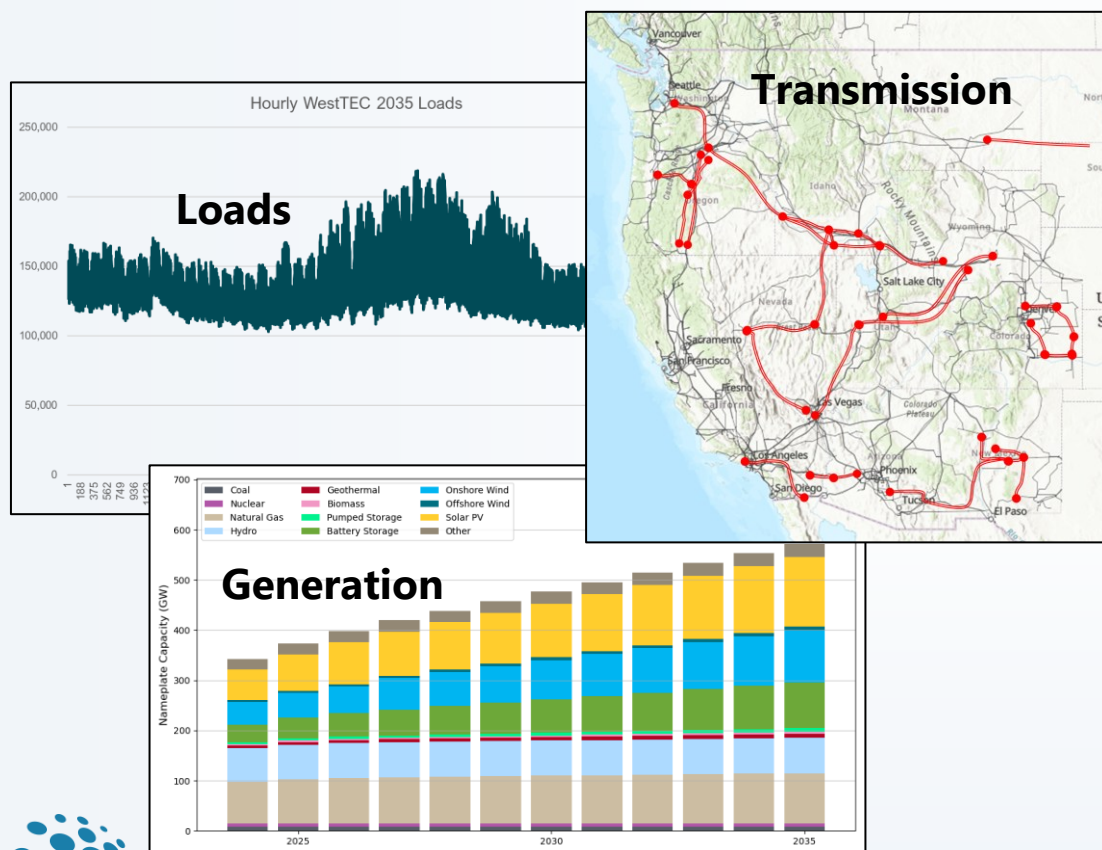
Keegan Moyer, Energy Strategies

20-year Horizon: What is different?

- » 20-year horizon assessment will detail long-term interregional transmission needs for the West
- » This assessment:
 - » Explores **long-term planning scenarios** – a solution to address the significant amount of uncertainty facing planners
 - » Enhance understanding of how transmission needs change in response to planning unknowns
 - » Allows for continued evaluation and right-sizing of 10-year horizon upgrades
 - » Identify long-lead transmission that is **least regrets**
 - » Forecasts benefits of key transmission

WestTEC Study Framework

Scenario-specific forecasts of....



Which transmission investments are necessary to maintain reliability during typical heavy loading conditions?

Which investments deliver power from where it is produced to where it is consumed during times of critical need?

 **WestTEC transmission portfolio**

Which investments enable load to be served with lower-cost generation?

Three Transmission Needs
Assessment Methods



Key Assumptions Driving Transmission: Resources and Loads

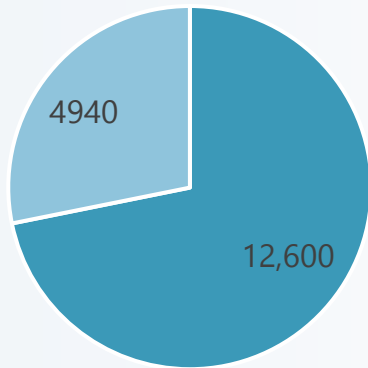
Today's Focus

WECC Wide Assumption (GW)	2024	Reference 2035	Reference 2045	Core 2045	Flux 2045
Natural Gas	109	97	113	115	104
Hydro	75	70	70	70	70
Solar PV	44	115	191	145	252
Wind	39	87	138	99	177
Coal	22	9	9	9	9
Battery Storage	16	70	110	91	127
Nuclear	7	6	6	13	6
Hydrogen & Other*	5	35	36	35	66
Geothermal	4	7	7	7	7
Total Resource Nameplate	322	495	679	584	818
Peak Load	168	193	224	218	258
Energy Demand (aGW)	106	120	145	139	167

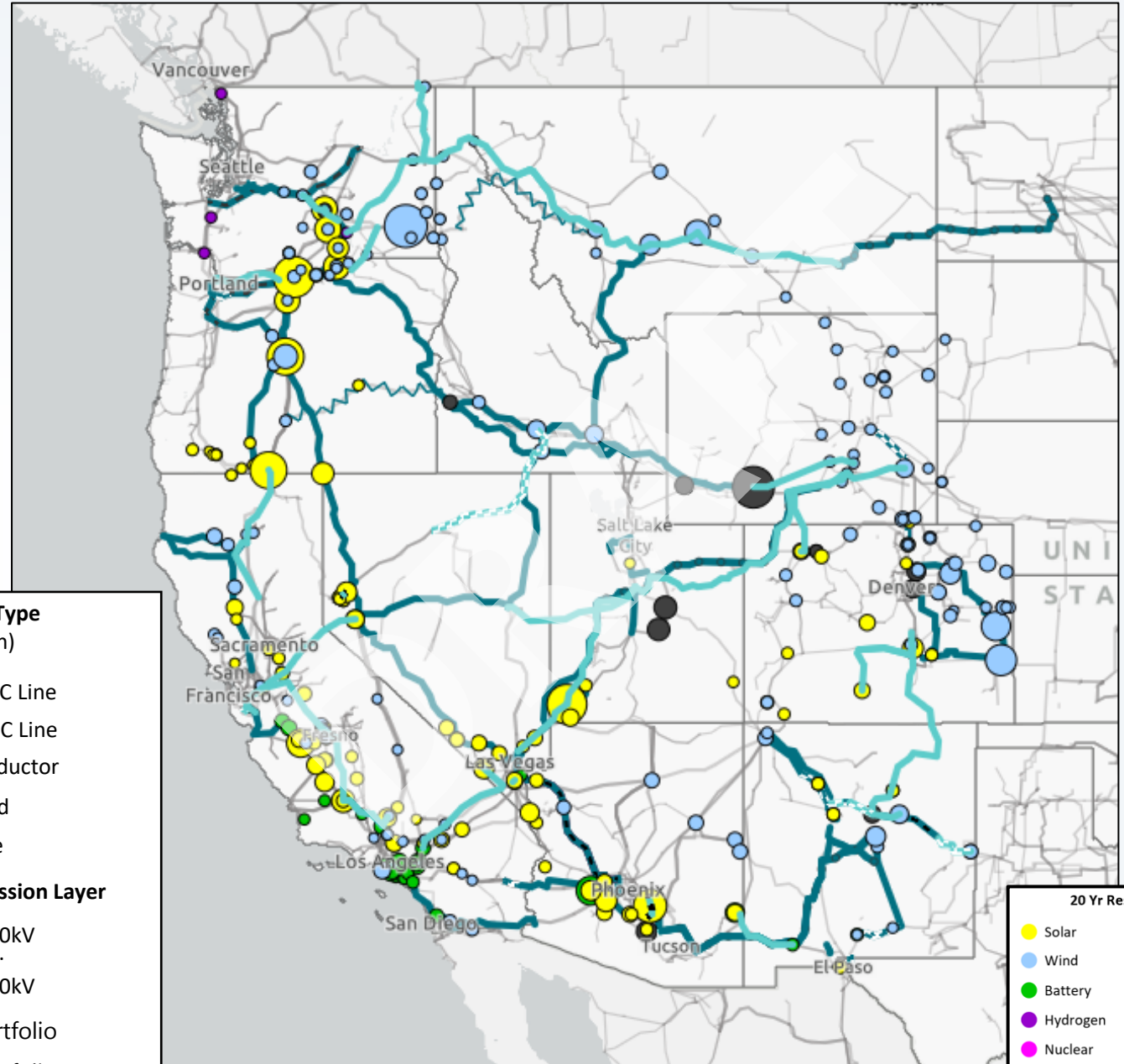
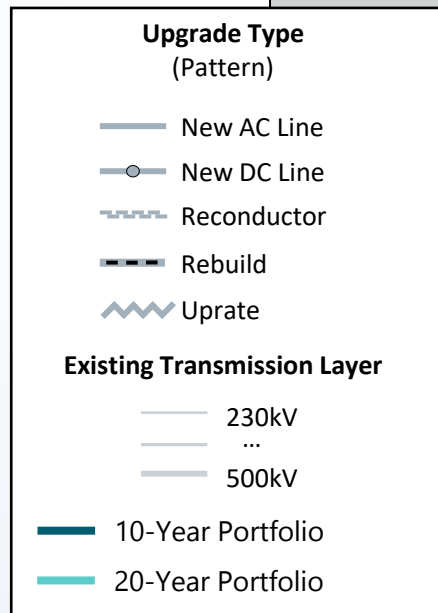
2045 Reference Case Hypothesis Map

Draft & Subject to Change

Line Miles



■ 10yr ■ 20yr



2045 Reference Case Hypothesis Map

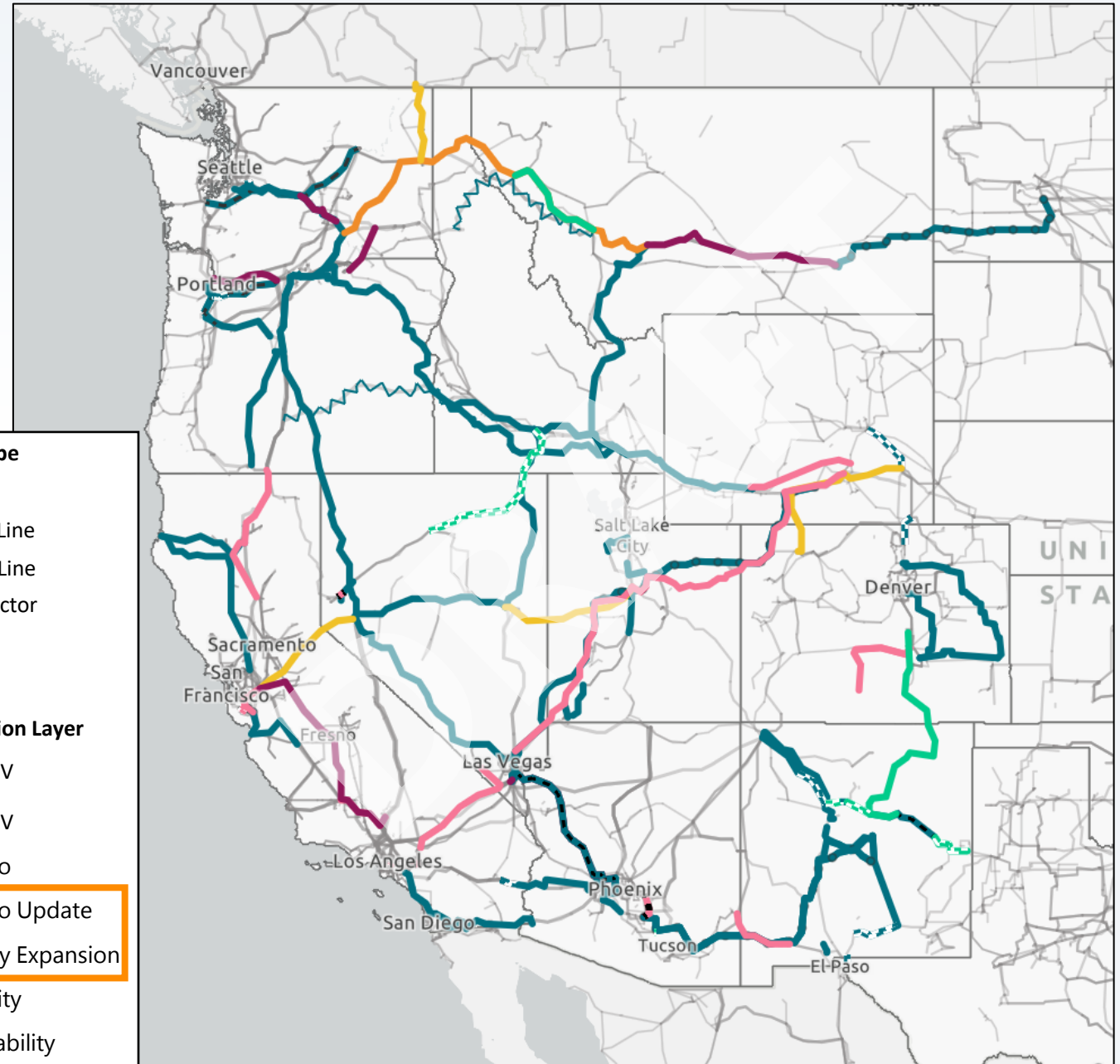
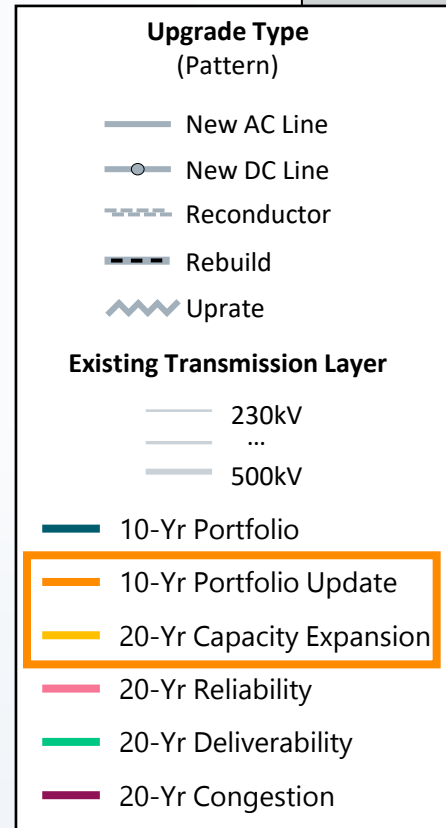
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20-Year Capacity Expansion Upgrades

Portfolio Item	Location
Cross Tie Transmission	UT/NV
Walker River – Tesla 500kV	NV/CA
Bell – Selkirk (Path 3)	WA/BC
Aeolus – Craig 500kV	CO/WY
Aeolus – LRS 500kV	WY

20-Year Updates to 10-Year Portfolio

Portfolio Item	Location
New Bell BPA – Ashe 500 kV line ckt 1 and ckt 2	WA
New BPA Garrison – GASH - Bell BPA - GASH 500 kV line	MT/WA
New Townsend - Garrison 500 kV line	MT

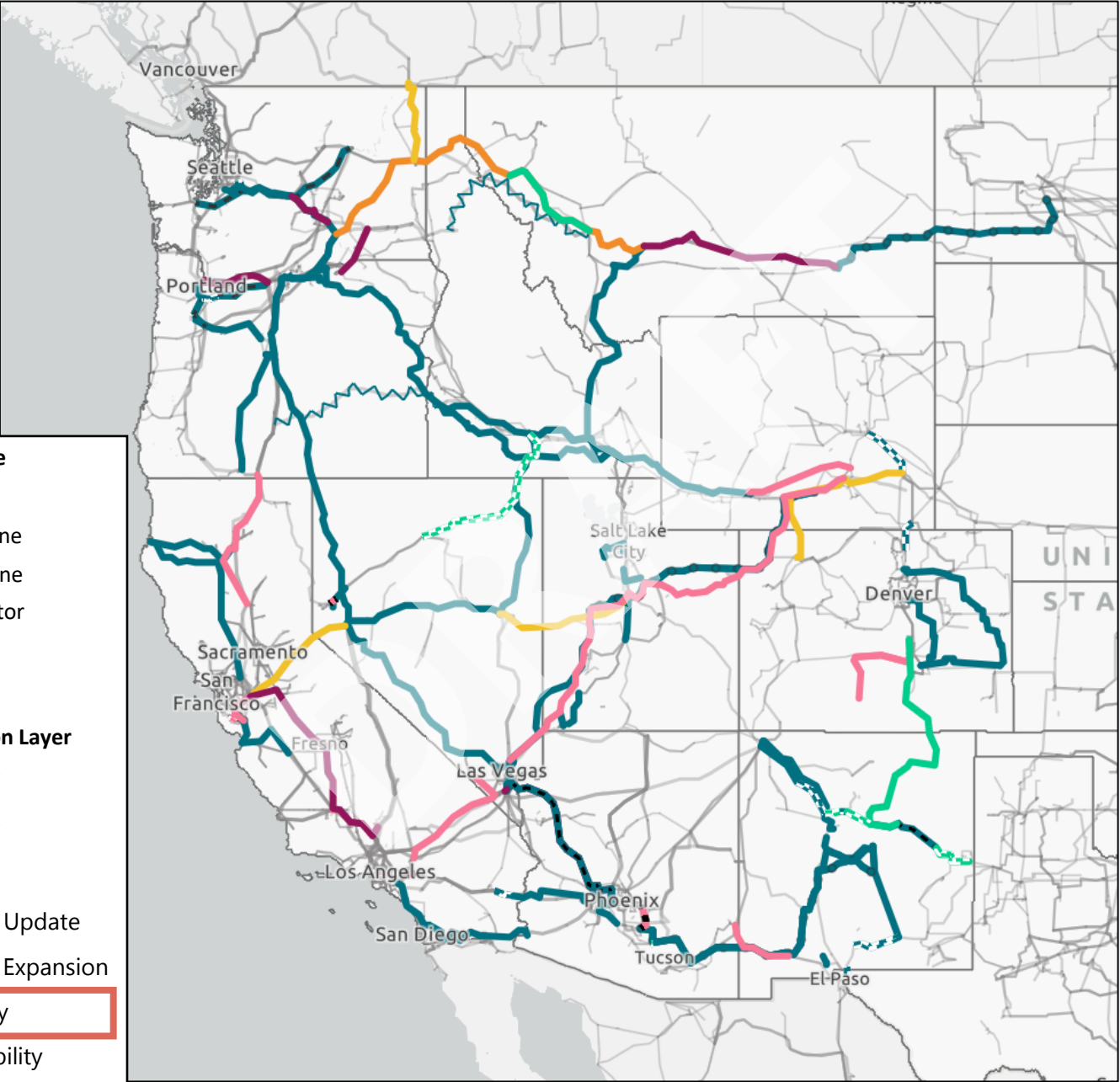
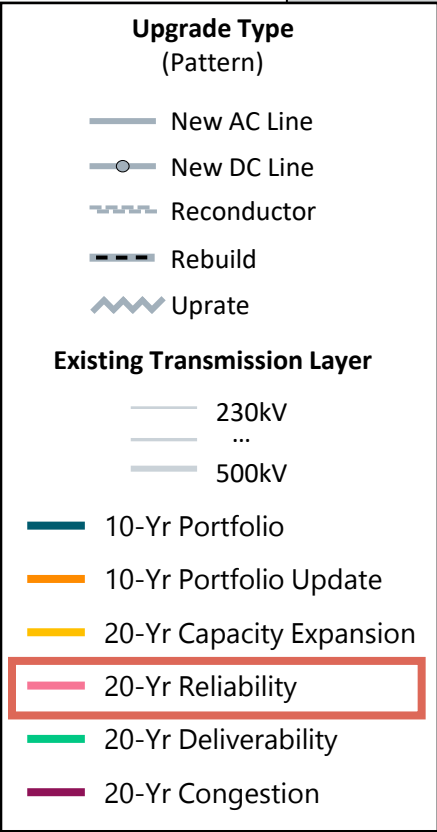


2045 Reference Case Hypothesis Map

Draft & Subject to Change

20-Year System Reliability Assessment (SRA) Upgrades

Portfolio Item	Location
Captain Jack – Fern Road 500kV line	OR/CA
Fern Road - Table Mt 500kV line	CA
Clover – Red Butte – Harry Allen 500kV line	UT/NV
Greenlee – Luna 345kV line	NM/AZ
Midway – Poncha – San Luis Valley 345	CO
25-26 CAISO TPP Projects in SCE	CA
Upgrades to 230kV system around Trimble	CA
Midway - Windhub 500kV	CA
Rebuild Pinal Central – Q76 – Browning 500kV to Double Circuit	AZ
Rebuild Tracy - Olinghouse 345kV to Double Ckt ACCC	NV
Tracy E - Tracy W breaker upgrades	NV
Second Aeolus - Clover 500 kV line	WY/UT
Shirley Basin – Anticline 500 kV	WY

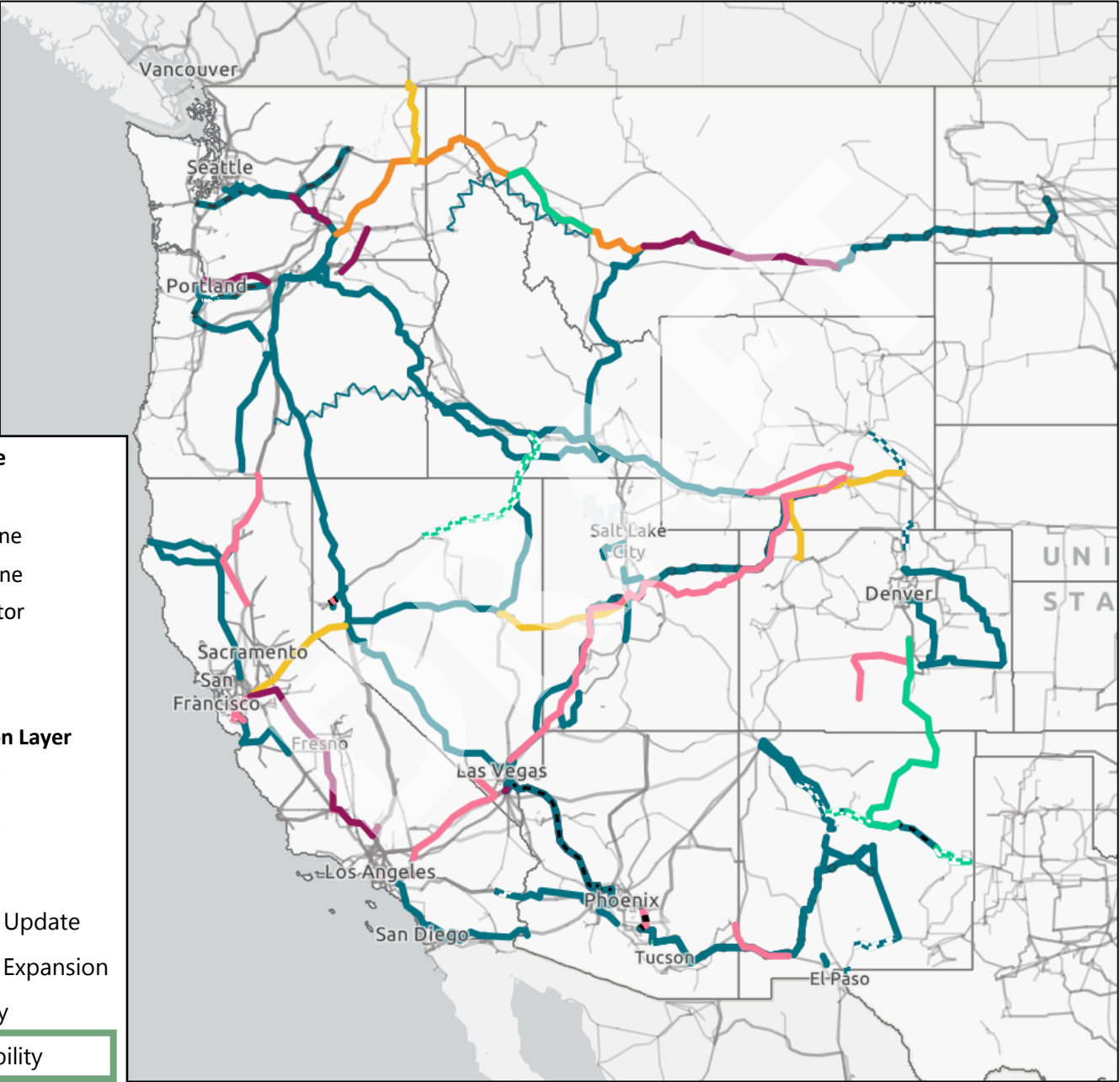
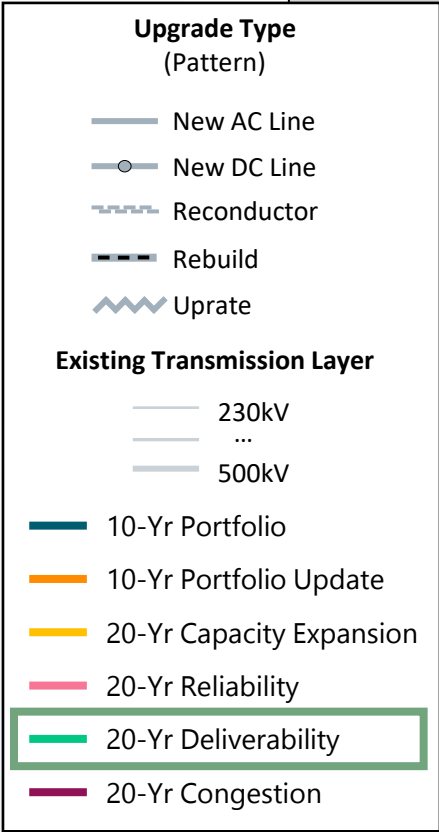


2045 Reference Case Hypothesis Map

Draft & Subject to Change

20-Year Interarea Deliverability Assessment (IDA) Upgrades

Portfolio Item	Location
New Garrison – GASH #2	MT
Reconductor Midpoint to Valmy 345kV circuit	ID and NV
Clines Corner – Tundra 345kV	NM to CO
Reconductor Diamond Tail – Clines Corner 1&2	NM
Clines Corner – Guadalupe 345kV #3	NM
Reconductor Rio Puerco – B-A 345kV 1&2	NM
Reconductor Saguaro – Tortilla 500kV 1&2	AZ

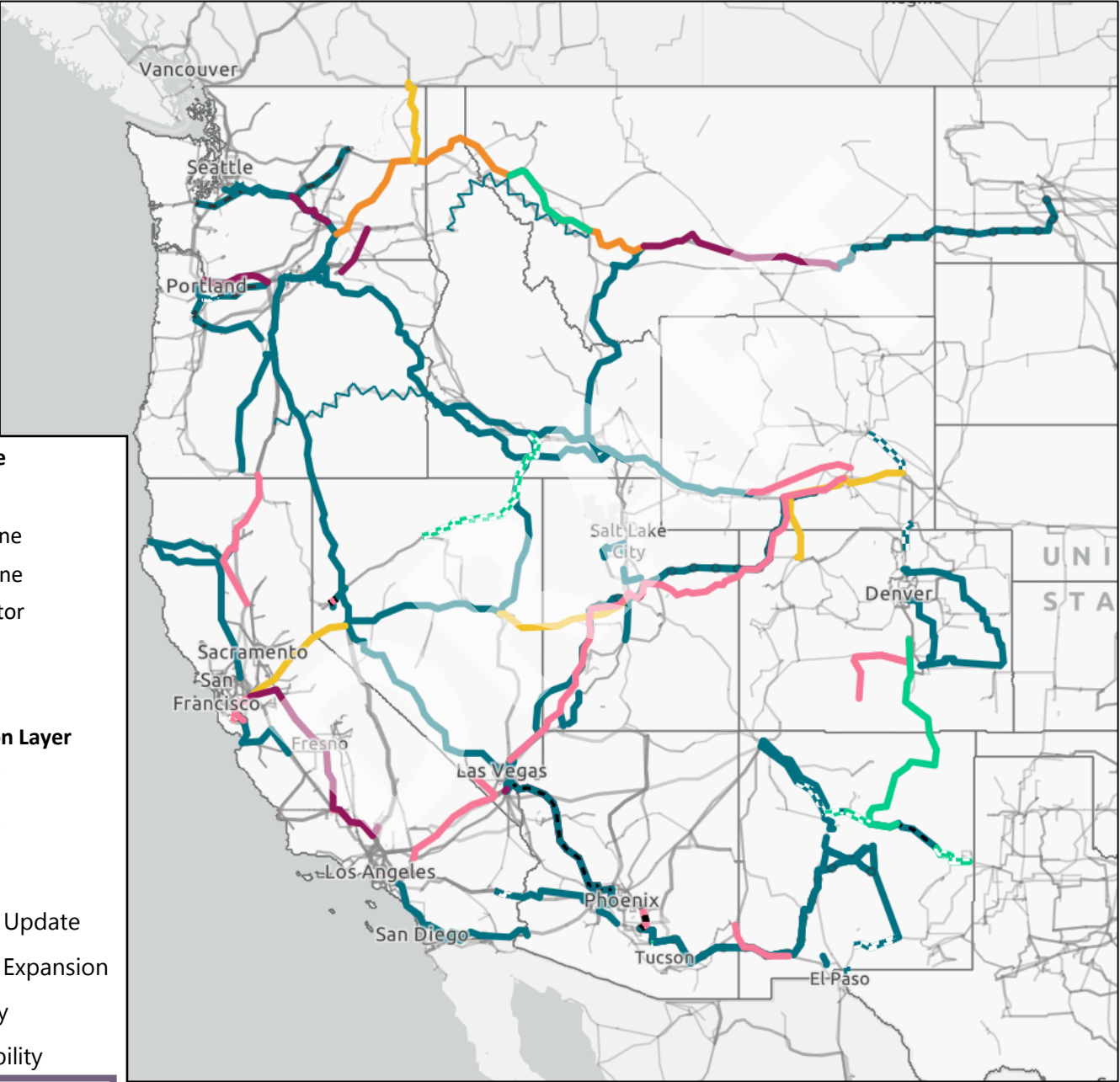
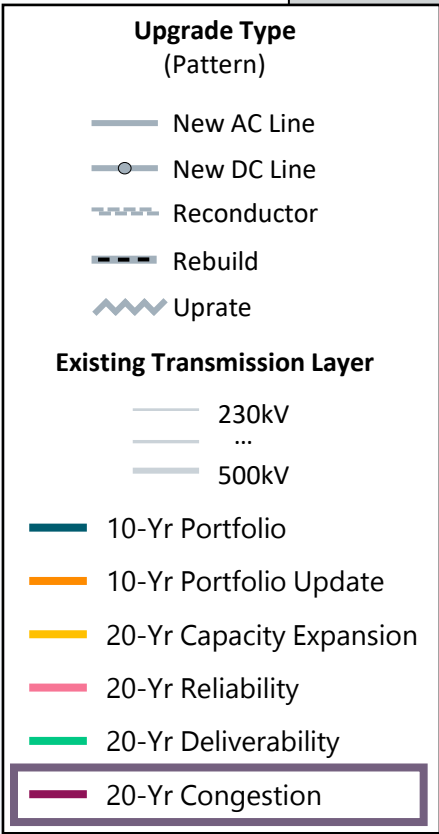


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20-Year Congestion Assessment Upgrades

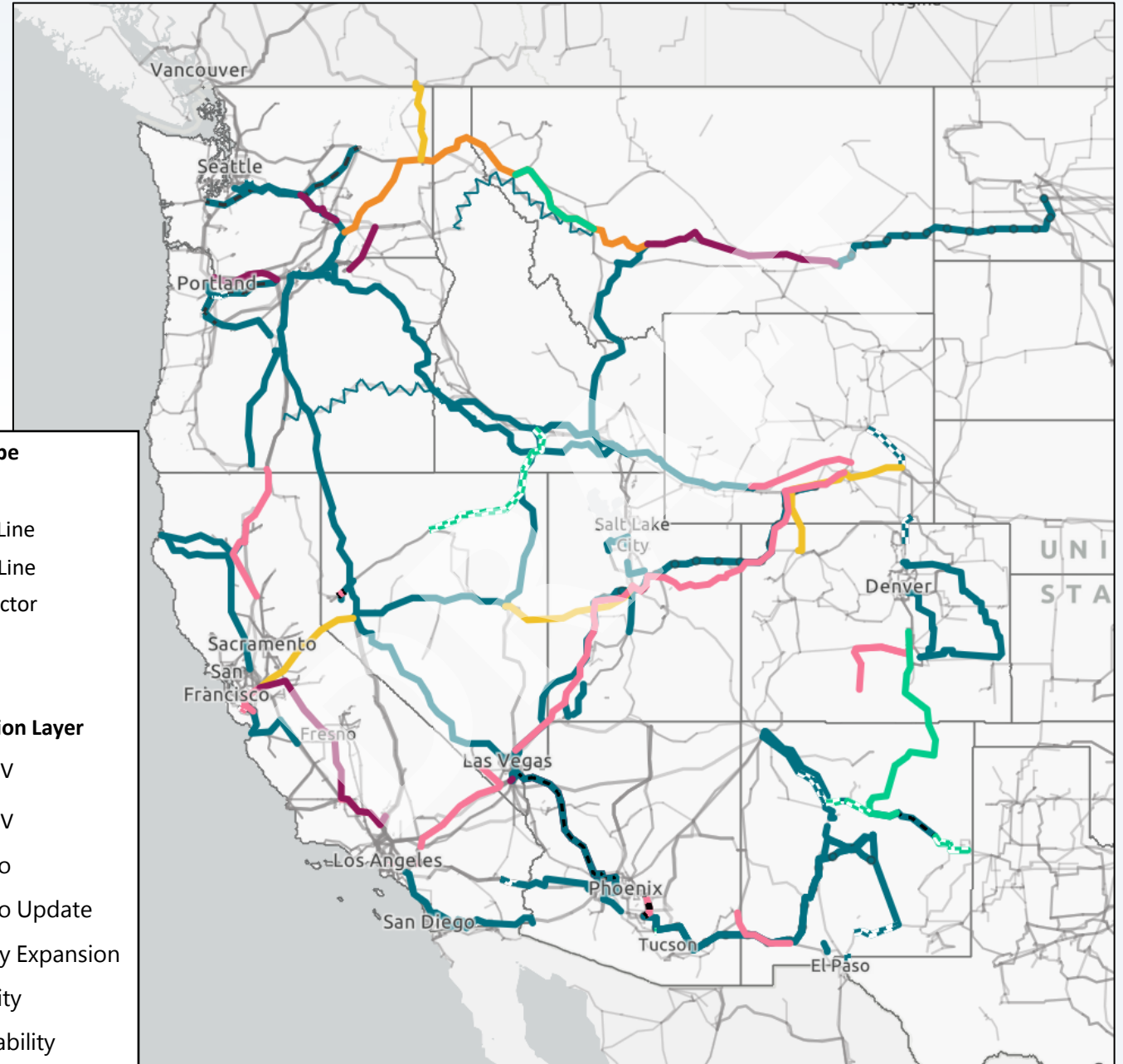
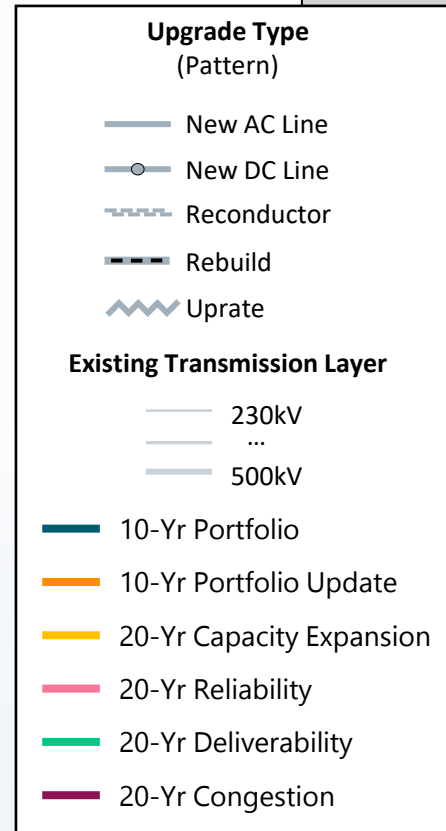
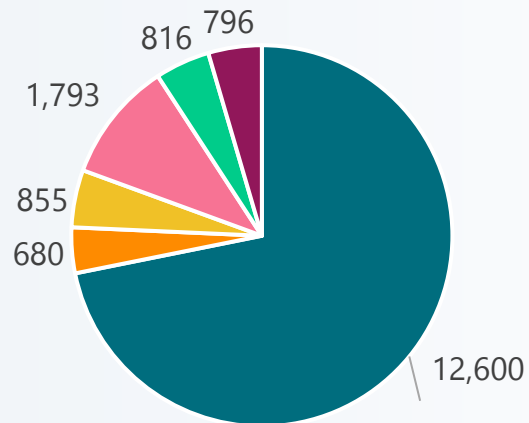
Portfolio Item	Location
Cascade Renewable Transmission Project	WA
New Colstrip - Broadview - Loco Mtn - Townsend 500 kV	MT
New Lower Monumental - Stanfield 500 kV line, new Stanfield substation looping in McNary - Calpine HPP 500 kV line	WA/OR
New Vantage - Schultz #2 500 kV line	WA
New Hanford - Vantage #2 500 kV line	WA
New Windhub - Tesla #1 500 kV line	CA



2045 Reference Case Hypothesis Map

Draft & Subject to Change

Portfolio Line Miles

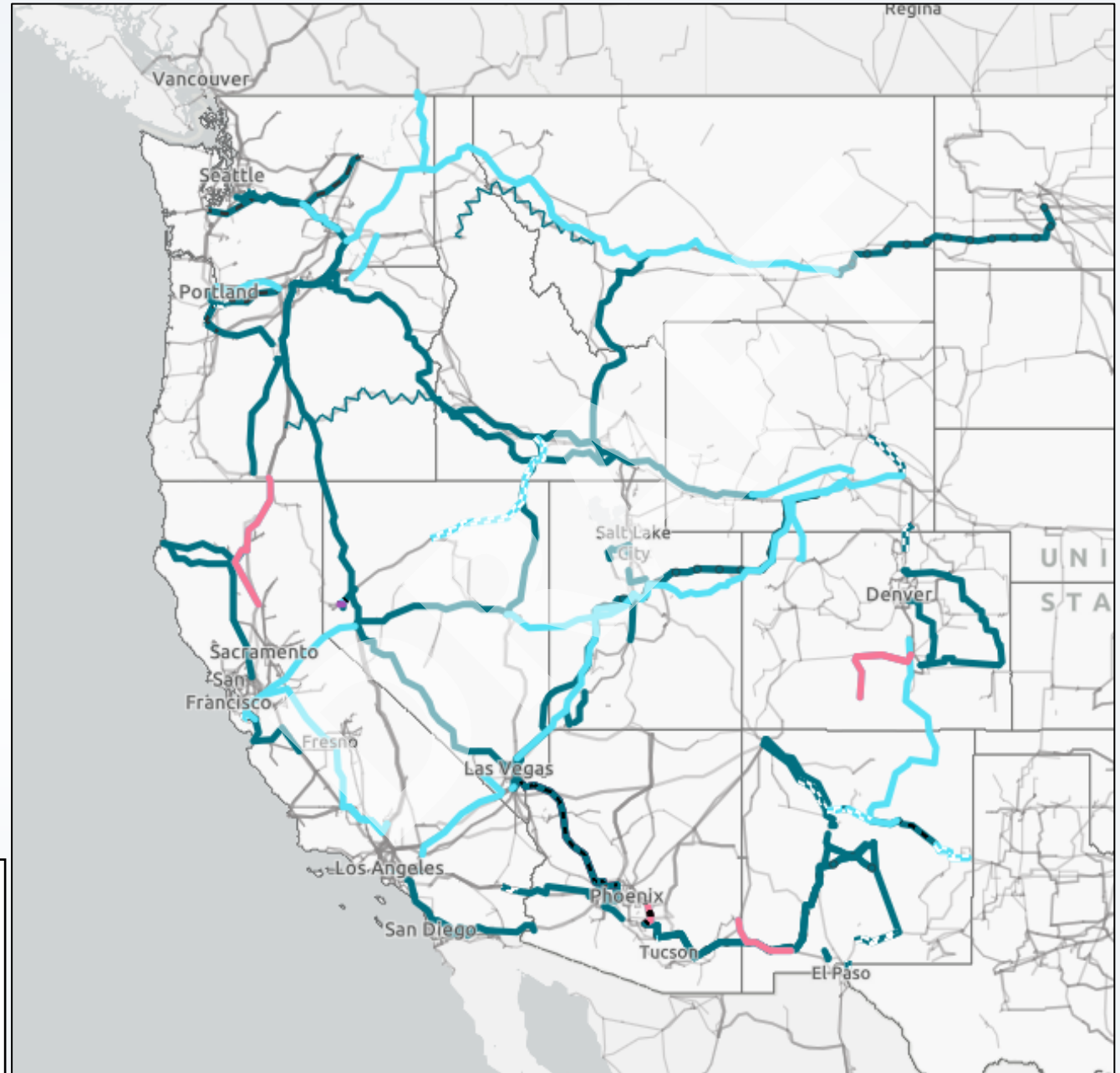
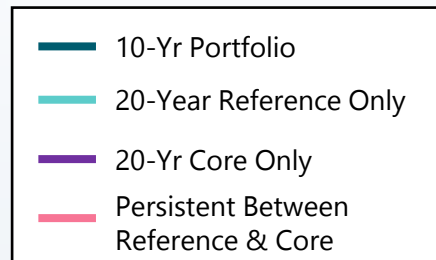


WestTEC 20-Year Scenarios

	Reference	Flux	Core
Narrative	A baseline scenario reflecting reasonably anticipated trends in load growth, technology, and policy	A high-growth scenario reflecting rapid changes in power demand and technology innovation	A moderate-growth scenario with select technology breakthroughs
Load Growth (2025-2045)	2.2% per year (56% increase)	3% per year (80% increase)	2% per year (48% increase)
Technology Costs	Moderate innovation trajectory	Advanced innovation trajectory	Conservative innovation trajectory* (No Tax Credits) *Breakthroughs in Storage, Advanced Geothermal, Nuclear SMRs, and CCS
GHG Policies	Statutory	Statutory & voluntary	Statutory with 5-year compliance delay

2045 Portfolio Synthesis Map

Transmission need identification not complete; **this map will continue to change as we complete remaining Flux/Core transmission solutioning assessments (SRA, IDA, congestion)**



Benefits Assessment

- » WestTEC study plan outlines 7 benefits
- » Benefits proposed to be assessed for a portfolio **persistent upgrades** across all WestTEC scenarios
 - » Purpose is to explore business case for the Western region to pursue lines that are needed among all studied futures
- » Benefits numbers will be derived from a comparison of investment, operational, and extreme event costs between the reference and a counterfactual transmission portfolio
- » Benefits modeling and assessments are underway



Benefits Outlined in WestTEC Study Plan

Benefit	Description (Similar to WestTEC Study Plan)
Operational & Congestion Efficiencies	Change in annual adjusted production cost (APC), capturing reductions in short-run generation production costs to serve load due to reduced congestion and/or curtailment (including reduced transmission energy losses; can be enhanced to reflect outage-related impacts if modeled). Operational benefits will reflect a multi-weather-year (~10-year) adjustment and operational uncertainty benefit.
Improved Resource Adequacy (reduced loss of load probability)	Load diversity savings from greater inter-area transfer capability, enabling balancing areas to share resources that could otherwise be constrained and potentially avoid construction of capacity resources.
Capacity Savings from Reduced Peak Energy Losses	Savings in capacity costs from reduced peak energy losses, lowering the total generation capacity required to meet peak demand.
Extreme Event Mitigation (resilience benefits)	Change in cost of unserved load and/or production under tail-event stressed conditions (high loads, generation unavailability, transmission outages, weather and other factors); valued using VOLL for avoided load curtailments.
Increased Resource Access	Savings from accessing higher-value resources due to transmission expansion; estimated via counterfactual scenarios and reflected as reductions in capital costs of the resource portfolio.
Avoided Emissions	GHG emission reductions due to transmission expansion and enabled resources, quantified using carbon cost and discount rate analysis.
Avoided or Deferred Reliability Upgrades	Avoided cost of reliability upgrades that would otherwise be needed; identified via powerflow results comparing facility loading (near/over thermal limits) with and without the transmission portfolio and estimating upgrade/replacement costs.

Counterfactual Case: What is needed if persistent upgrades are not built?

- » E3 performed capacity expansion modeling for the WestTEC 20-year Counterfactual.
- » Same as Reference scenario model, except:
 - » No inter-regional transmission expansion allowed across the study area
 - » Modifications to planned transmission builds
 - » Modifications to CAISO TPP out-of-state resource minimum-build requirements
 - » Reduction in PRM footprints to represent resource adequacy needs being met locally
 - » Transfers between zones capped at 2045 reference case levels

Compared for purposes of estimating portfolio-wide transmission benefits

	Reference	Counterfactual
Narrative	A baseline scenario reflecting reasonably anticipated trends in load growth, technology, and policy	A baseline reflecting anticipated trends, without most inter-regional transmission expansion
Load Growth (2025-2045)	2.2% per year	Same as Reference
Technology Costs	Moderate innovation trajectory	
GHG Policies	Statutory	

Discussion/Q&A

Admin-WTEC@westernpowerpool.org

Timeline for 20-Year Study

(Revised through Q4 2026)

Case	Task	Q1 2026	Q2 2026	Q3 2026	Q4 2026	Q1 2027
Reference	Case & Methodology Development					
	Transmission Assessments/ Solutioning					
Scenarios (Flux & Core)	Busbar Mapping					
	Case & Methodology Development					
	Transmission Assessments/ Solutioning					
	Benefits/Extreme Event Assessments					
20-Year Report	Portfolio Synthesis					
	Report Editing & Review					
	Stakeholder Engagement					



Timeline Updates

	8/24 - 8/28	8/31 - 9/4	9/7 - 9/11	9/14 - 9/18	9/21 - 9/25	9/28 - 10/2	10/5 - 10/9	10/12 - 10/16	10/19 - 10/23
ES Technical Work									
ES Draft Report									
Committee Meetings	All-Committees			WATT – 9/15 REC – 9/17			WATT – 10/6 REC – 10/8		
	10/26 - 10/30	11/2 - 11/6	11/9 - 11/13	11/16 - 11/20	11/23 - 11/27	11/30 - 12/4	12/7 - 12/11	12/14 - 12/18	12/21 - 12/31
ES Draft Report									
Committee Review			WATT/REC Review				Steering Review		
Committee Meetings	All-Committees – Oct 28			WATT – 11/17 REC – 11/19			Steering Vote 12/9		
Report Finalization									

Action Items & Next Steps



All-Hands Meeting in
October 2026



20-Year Report Review to
be Performed Q4 2026

Wrap-Up

- » This webinar has been recorded and will be posted along with this presentation to the WestTEC website in the coming days at [WPP](#)
- » Look for the next Public Webinar to be scheduled in Q4 2026
- » Thank you for your support and participation!